UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/711,783	11/13/2000	Hugo Fruehauf	48922.20001.00	7175

25224 7590 04/23/2004

MORRISON & FOERSTER, LLP
555 WEST FIFTH STREET
SUITE 3500
LOS ANGELES, CA 90013-1024

EXAMINER	
DADA, BEEMNET W	

ART UNIT	PAPER NUMBER
2135	7

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/711,783	FRUEHAUF ET AL.	
	Examiner	Art Unit	
	Beemnet W Dada	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-60* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-60* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-60 have been examined.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 16, 17, 19-26, 28-30, 32-39, 41-53 and 55-60 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones (U.S. Patent No. 5,412,730).

4. As per claims 16 and 38, Jones teaches a method of cryptographic communication comprising the steps of:

generating data strings (generating sequence of pseudo-random key values) [column 1, lines 37-47 and column 12, lines 40-41];

forming a decryption key using at least one of said data strings [column 1, lines 37-42 and column 12, lines 40-41];

receiving a signal [column 3, lines 57-60 and column 5, lines 19-27]; and

decrypting the received signal using said decryption key [column 4, lines 3-12 and column 12, lines 50-51].

5. As per claims 25 and 48, Jones teaches a method of cryptographic communication comprising the steps of:

generating data strings (generating sequence of pseudo-random key values) [column 1, lines 37-47 and column 12, lines 32-33];

forming an encryption key using at least one of said data strings [column 1, lines 37-42 and column 12, lines 32-33];;

encrypting a signal using said encryption keys [column 5, lines 15-16 and column 12, lines 38-39].; and

transmitting the signal [column 5, lines 15-16 and column 3, lines 5-10].

6. As per claims 17, 26, 39 and 49, Jones teaches the method as applied to claims 16, 25, 38 and 48 above. Furthermore, Jones teaches the method, wherein said data strings are generated in a pseudo-random order [column 3, lines 57-60].

7. As per claims 19 and 41, Jones teaches the method as applied to claims 16 and 38 above. Furthermore, Jones teaches the method, further comprising the step of selecting seed value from which said data sting is to be generated [column 1, lines 42-47, 66-68 and column 2, lines 1-7].

8. As per claims 20 and 43, Jones teaches the method as applied to claims 16 and 38 above. Furthermore, Jones teaches the method, further comprising the step of forming an encryption key using at least one of said generated data strings [column 3, lines 27-33].

9. As per claims 21 and 44, Jones teaches the method as applied to claims 20 and 43 above. Furthermore Jones teaches the method, further comprising the steps of encrypting an output signal using said encryption key [column 12, lines 38-39].

10. As per claims 22 and 45, Jones teaches the method as applied to claims 20 and 43 above. Furthermore, Jones teaches the method, further comprising the step of transmitting said output signal [column 3, lines 5-10, column 12, lines 38-39].

11. As per claims 23 and 46, Jones teaches the method as applied to claims 16 and 41 above. Furthermore, Jones teaches the method, wherein the data string is generated from a seed value [column3, lines 29-33].

12. As per claims 24, 42 and 47, Jones teaches the method as applied to claims 16 and 38 above. Furthermore, Jones teaches the method further comprising the step of transmitting user address or user identification (serial number which identifies a remote hardware) [column 2, lines 8-17 and column 10, lines 9-33].

13. As per claims 28 and 51, Jones teaches the method as applied to claims 25 and 48 above. Furthermore, Jones teaches the method, further comprising the steps of receiving an incoming signal [column 3, lines 57-60 and column 5, lines 19-27].

14. As per claim 52, Jones teaches the method as applied to claim 48 above. Furthermore, Jones teaches the method further comprises the step of storing a seed value [column 9, lines 55-60].

15. As per claims 29 and 55, Jones teaches the method as applied to claims 25 and 52 above. Furthermore, Jones teaches the method, further comprising the step of storing a user address [column 2, lines 8-17, column 10, lines 17-20].

16. As per claims 30 and 53, Jones teaches the method as applied to claims 25 and 52 above. Furthermore, Jones teaches the method, further comprising the step of storing user identification [column 2, lines 8-17]

17. As per claims 32, Jones teaches the method as applied to claim 29 above. Furthermore, Jones teaches the method, further comprising the step of storing a seed value [column 9, lines 55-60].

18. As per claims 33 and 56, Jones teaches the method as applied to claims 32 and 55 above. Furthermore, Jones teaches the method, further comprising the step of linking user address to said seed value [column 9, lines 51-60, column 1, lines 65-68 and column 2, lines 1-8].

19. As per claim 34 and 57, Jones teaches the method as applied to claims 32 and 53 above. Furthermore, Jones teaches the method, further comprising linking said user identification to said seed value [column 9, lines 51-60, column 1, lines 65-68 and column 2, lines 1-8].

20. As per claims 35 and 58, Jones teaches the method as applied to claim 32 and 55 above. Furthermore, Jones teaches the method, wherein data strings are generated using said seed values [column3, lines 29-33].

21. As per claims 36 and 59, Jones teaches the method as applied to claims 35 and 48 above. Furthermore, Jones teaches the method, further comprising the step of forming a decryption key using at least one of said data strings [column 1, lines 37-42 and column 12, lines 40-41].

22. As per claims 37 and 60, Jones teaches the method as applied to claims 36 and 59 above. Furthermore, Jones teaches the method, further comprising the step of decrypting said incoming signal using said decryption key [column 4, lines 3-12 and column 12, lines 50-51].

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

24. Claims 1-15, 18, 27, 31, 40, 50 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (U.S. Patent No. 5,412,730).

25. As per claim 1, Jones teaches a cryptographic communication system comprising:

a plurality of user communication interfaces (receiving stations) [column 1, lines 37-42 and column 2, lines 1-5] each of said communication interfaces including:

a data receiver [figure 2, unit 113 and column 5, lines 19-23];

a string generator [figure 1, unit 27];

a data processor connected to said string generator [figure 1, unit 27, figure 2, unit 101, and column 4, lines 61-63]; and

a memory connected to said string generator (i.e. the modem hardware in figure 2 connected to the receiving station of figure 1) [figure 1, unit 27, figure 2, unit 103, and column 4, lines 61-63], said memory having stored a seed value [column 5, lines 15-19];

a transmitting station [column 1, lines 37-42 and column 2, lines 1-5] , said transmitting station including:

a data transmitter [column 4, lines 61-65];

a second string generator [figure 1, unit 23];

a second data processor connected to said second string generator (i.e. the modem hardware in figure 2 connected to the transmitting station of figure 1) [figure 1, unit 23, figure 2, unit 101, and column 4, lines 61-63]; and

a second memory connected to said second string generator [figure 1, unit 23, figure 2, unit 103, and column 4, lines 61-63], said second memory having stored said seed value [column 5, lines 15-19].

Furthermore, Jones teaches the system applied to a secure communication network operating under a central control (i.e. a system having a master station) [column 2, lines 37-40]. However, Jones does not explicitly teach a master station. It would have been obvious to one

having ordinary skill in the art at the time the invention was made to include a master station. It would have been obvious because Jones teaches a transmitting station having a data transmitter, a string generator, a data processor and a memory connected to the string generator as applied above. Furthermore, Jones teaches that the principles of this system may be applied in terminals operating under a central control [column 2, lines 37-40]. Therefore it would have been obvious to implement a master station into the transmitter station thought by Jones, in order to control terminals from a central station.

26. As per claim 2, Jones teaches the system as applied to claim 1 above. Furthermore, Jones teaches the system, wherein said string generator is a pseudo-random string generator, and wherein said second string generator is a pseudo-random string generator [column 3, lines 57-60].

27. As per claim 3, Jones teaches the system as applied to claim 1 above. Furthermore, Jones teaches the system, wherein each of said plurality of user communication interfaces further includes a key block device [figure 1, unit 29], wherein said master station (transmitting station) further includes a second key formation device [figure 1, unit 21].

28. As per claims 4 and 5, Jones teaches the system as applied to claim 1 above. Furthermore, Jones teaches the system, wherein each of said plurality of user communication interfaces is connected to said master (transmitting unit) through a communication network [column 2, lines 8-12 and column 3, lines 7-10].

29. As per claim 6, Jones teaches the system as applied to claim 1 above. Furthermore, Jones teaches the system, wherein each seed value stored in a user communication interface is unique [column 1, lines 66-68 and column 2, lines 1-7].

30. As per claims 7 -11, Jones teaches the system as applied to claims 1 and 6 above. Furthermore, Jones teaches the system, wherein said second memory of said master station (transmitting station) includes a plurality of seed values, and wherein each of said seed values stored in said memory correspond to a value stored by the memory of one of plurality of said user communication interfaces [column 2, lines 1-25 and column 10, lines 9-32].

31. As per claim 12 and 13, Jones teaches the system as applied to claim 1 above. Furthermore, Jones teaches the system, wherein each of said plurality of user communication interfaces further includes a data dectryptor [figure 1, unit 31], and wherein said master station (transmitter station) further includes a master data encryptor [figure 1, unit 17].

32. As per claim 14, Jones teaches the system as applied to claim 1 above. Furthermore, Jones teaches the system, wherein the memory of at least one of said user communication interfaces includes a configurable common seed value, and wherein the master memory of the master station (transmitting station) includes said configurable common seed value [column 2, lines 8-17 and column 5, lines 17-20].

33. As per claim 15, Jones teaches the system as applied to claim 1 above. Furthermore, Jones teaches the system, wherein said transmitting station can transmit data to each of said plurality of user communication interfaces [column 5, lines 15-16 and column 3, lines 5-10].

34. As per claims 18, 27, 31, 40, 50 and 54, Jones teaches the method as applied to claims 16, 25, 28, 38 and 51 above. Furthermore Jones teaches a monitoring function for counting units of data being transmitted [column 1, lines 54-59]. However Jones does not explicitly teach determining whether to encrypt a signal and determining whether a received signal is encrypted. It would have been obvious to one having ordinary skill in the art at the time the invention was made include a method of determining whether a received signal is encrypted in order to transmit plain data that is encrypted as well as plain text data. This would have been obvious because Jones teaches a method of monitoring transmitted data [column 1, lines 54-59].

Conclusion

35. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) U.S. Patent No. 4,809,327 to Shima

b) U.S. Patent No. 6,191,701 B1 to Bruwer

c) U.S. Patent No. 4,634,808 to Moerder

d) U.S. Patent No. 5,115,467 to Esserman et al.

e) U.S. Patent No. 5,345,508 to Lynn et al.

f) U.S. Patent No. 4,864,615 to Bennett et al.

g) U.S. Patent No. 5,764,771 to De Vito et al.

h) U.S. Patent No. 5,802,175 to Kara

i) U.S. Patent No. 5,748,734 to Mizikovsky

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beemnet W Dada whose telephone number is (703) 305-8895. The examiner can normally be reached on Monday - Friday (8:30 am - 6:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y Vu can be reached on (703) 305-4393. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Beemnet Dada

April 12, 2004